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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,900	11/28/2001	Steven P. Downing	10006447-1	1554

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
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EXAMINER

NGUYEN, HOAI AN D

ART UNIT PAPER NUMBER

2854

DATE MAILED: 03/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/995,900

Applicant(s)

DOWNING, STEVEN P.

Examiner

Hoai-An D. Nguyen

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period of Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8, 17, 18 and 20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Fowler (US 5,962,861).

Fowler teaches a printing device comprising:

- A print medium drive mechanism (FIG.1, pick/feed mechanism 42) configured to advance the print medium through the print zone (FIG.1, image area 52) (Column 3, lines 24-29), with regard to claims 1, 17 and 22.
- A pinch roller mechanism (FIG.1, registration roller 56) biased against the print medium drive mechanism and configured to deflect away from the print medium drive mechanism as the print medium passes between the pinch roller mechanism and print medium drive mechanism (Column 4, lines 13-17), with regard to claims 1, 17, 18 and 22.
- A proximity sensor (FIG.5, sensor 61) configured to measure the extent of deflection of the paper (Column 4, lines 7-9), which is obviously also the deflection of pinch roller mechanism, with regard to claims 1, 17 and 22.

A processing device (FIG.1, controller 15) coupled to the proximity sensor and configured to determine a thickness of the print medium based on the measured extent of deflection of the pinch roller mechanism (Column 4, lines 7-13), with regard to claim 2.

- The proximity sensor is further configured to output a signal indicative of the extent of deflection of the pinch roller mechanism and the processing device is further configured to receive the signal from the proximity sensor and determine the print medium thickness based on this signal (Column 4, lines 7-13), with regard to claim 3.
- The processing device is further configured to enable initial deposition of printing composition on the print medium by the printing device after receiving the signal from the proximity sensor (Column 4, lines 17-32), with regard to claims 4 and 21.
- The apparatus of claims 1 and 22 is in a printing device (FIG.1, a conventional laser printer) (Column 2, lines 34-35), with regard to claims 5 and 23.
- The print medium drive mechanism includes a drive roller (FIG.1, feed roller 44) (Column 3, lines 25-26), with regard to claims 6 and 20.
- The proximity sensor is positioned adjacent the pinch roller mechanism (FIG.1) (Column 3, lines 54-63), with regard to claim 7.
- The proximity sensor is integral with the pinch roller mechanism (FIG.1) (Column 3, lines 54-63), with regard to claim 8.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9-16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fowler in view of Rasmussen et al. (US 6,179,419).

Fowler teaches a printing device comprising:

- A print medium drive mechanism (FIG.1, pick/feed mechanism 42) configured to advance the print medium through the print zone (FIG.1, image area 52) (Column 3, lines 24-29), with regard to claim 9.
- A proximity sensor (FIG.5, sensor 61) configured to measure the extent of deflection of the paper (Column 4, lines 7-9), which is obviously also the deflection of the shim, with regard to claim 9.

However, Fowler does not teach the following:

- A shim biased against the print medium drive mechanism and configured to deflect away from the print medium drive mechanism as the print medium passes between the shim and print medium drive mechanism

Meanwhile, Rasmussen et al. teaches a media handling system used in an inkjet printing apparatus comprising:

- A shim (FIG.1, guide shim 46) biased against the print medium drive mechanism and configured to deflect away from the print medium drive mechanism as the

print medium passes between the shim and print medium drive mechanism
(Column 4, lines 10-12), with regard to claims 9 and 19.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention of Fowler to incorporate the teaching of a shim taught by Rasmussen et al. since it is obvious that such a shim is beneficial for having a natural bias against the print medium drive mechanism and also preventing cockling or other distortions of the print medium, and it functions exactly the same as the a pinch roller mechanism in the printing system.

- A processing device (FIG.1, controller 15) coupled to the proximity sensor and configured to determine a thickness of the print medium based on the measured extent of deflection of the shim (Column 4, lines 7-13), with regard to claim 10.
- The proximity sensor is further configured to output a signal indicative of the extent of deflection of shim and the processing device is further configured to receive the signal from the proximity sensor and determine the print medium thickness based on this signal (Column 4, lines 7-13), with regard to claim 11.
- The processing device is further configured to enable initial deposition of printing composition on the print medium by the printing device after receiving the signal from the proximity sensor (Column 4, lines 17-32), with regard to claim 12.
- The apparatus of claim 9 is in a printing device (FIG.1, a conventional laser printer) (Column 2, lines 34-35), with regard to claim 13.
- The print medium drive mechanism includes a drive roller (FIG.1, feed roller 44) (Column 3, lines 25-26), with regard to claim 14.

- The proximity sensor is positioned adjacent the shim (FIG.1) (Column 3, lines 54-63), with regard to claim 15.
- The proximity sensor is integral with the pinch roller mechanism (FIG.1) (Column 3, lines 54-63), with regard to claim 16.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant's attention is invited to the followings whose inventions disclose similar devices.

- Rasmussen et al. (US 6,139,140) teaches an inkjet printing apparatus with media handling system providing small bottom margin capability.
- Decker et al. (US 4,696,426) teaches a document reading envelope.
- Cornelius (US 6,028,318) teaches a print media weight detection system.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoai-An D. Nguyen whose telephone number is (703) 305-3343. The examiner can normally be reached on M-F (8:00 - 5:30) First Friday Off.

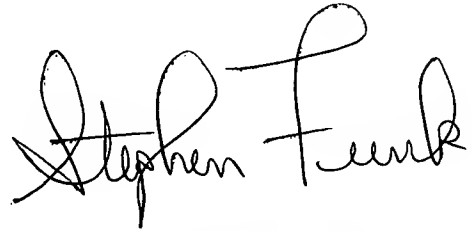
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (703) 305-6619. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Art Unit: 2854

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Hoai-An D. Nguyen
Examiner
Art Unit 2854

HADN
March 20, 2003

A handwritten signature in black ink, appearing to read "Stephen Funk". The signature is stylized with large loops and a cursive script.

**STEPHEN R. FUNK
PRIMARY EXAMINER**